UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,267	04/20/2004	Gidon Elazar	SNDK.428US1	2409

66785 7590 12/07/2009

DAVIS WRIGHT TREMAINE LLP - SANDISK CORPORATION
505 MONTGOMERY STREET
SUITE 800
SAN FRANCISCO, CA 94111

EXAMINER	
DAY, HERNG DER	

ART UNIT	PAPER NUMBER
2128	

MAIL DATE	DELIVERY MODE
12/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/827,267	ELAZAR ET AL.	
	Examiner	Art Unit	
	HERNG-DER DAY	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22-31 and 55-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,22-31 and 55-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Applicants' Response ("Response") to Office Action dated March 4, 2009, filed September 3, 2009.

1-1. Claims 1-20, 22-31, and 55-58 are pending.

1-2. Claims 1-20, 22-31, and 55-58 have been examined and rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6, 12-16, 18-20, 30, and 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn et al., KR Patent Publication No. KR2003-0000794 published January 6, 2003, in view of Yang, U.S. Patent 6,733,329 B2 issued May 11, 2004, and filed August 21, 2002.

3-1. Regarding claim 1, Ahn et al. disclose a web server emulation device for serving web content, the web server emulation device adapted to be coupled to a digital appliance for end use of at least part of the web content, the web server emulation device comprising:

one or more non-volatile storages (*flash memory*, page 5, paragraph 7) for storing at least part of the web content (the *web page* which is prepared in order to provide the development environment of the target embedded system (3) is built in the memory (222), page 5, paragraph 8);

one or more interfaces, coupled to at least one of the nonvolatile storages, the one or more interfaces for receiving and sending at least part of the web content (target *interface* (23), … and host *interface* (21), page 6, paragraph 6), and

one or more agents for preparing web content to be served the digital appliance (the web server application is performed, page 5, paragraph 7),

wherein at least part of the web content is served the digital appliance for end use of the web content (In the *web page* through the web browser (11) of the *host system* (1), the development of the target embedded system (3) is performed, page 6, paragraph 10).

Ahn et al. fail to expressly disclose the web server emulation device is a portable storage device. Nevertheless, Ahn et al. disclose the memory (222) may include flash memory in page 5, paragraph 7, and the in circuit emulator based on the web (2) is a device having two interfaces as shown in page 10, Fig. 1.

Yang discloses a USB flash drive with built-in controller and flash memory currently has max. 1 gigabyte storage capacity (column 1, lines 17-25). A USB flash drive is a multifunctional device to enlarge the application scope of the mobile storage device (column 1, lines 54-56). Furthermore, a USB flash drive utilizes a detachable interconnector to reach a smooth data transfer between USB interfaces of different specifications (column 1, lines 57-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate the teachings of Yang because a USB flash drive may enlarge the application scope of the *mobile* storage device and reach a smooth data transfer between USB interfaces of different specifications.

3-2. Regarding claim 2, Ahn et al. further disclose wherein the web server emulation device is coupled to the digital appliance (As to the host interface (21), … it interfaces the host system (1) and in circuit emulator based on the web (2), page 5, paragraph 5).

3-3. Regarding claim 3, Ahn et al. further disclose wherein the digital appliance is a computer (the personal computer is usually used as the host system (1), page 5, paragraph 3).

3-4. Regarding claim 4, Ahn et al. further disclose wherein the digital appliance is a personal digital assistant (PDA, page 5, paragraph 3).

3-5. Regarding claim 6, Ahn et al. further disclose wherein the web content is at least a web page (the *web page* … is built in the memory (222), page 5, paragraph 8).

3-6. Regarding claim 12, Ahn et al. further disclose wherein the web server emulation device couples to the digital appliance via a physical connection to the digital appliance (the Ethernet interface, page 4, paragraph 6).

3-7. Regarding claim 13, Ahn et al. further disclose wherein the physical connection includes one or more cables (the Ethernet interface, page 4, paragraph 6; using Ethernet cable).

3-8. Regarding claim 14, Ahn et al. further disclose wherein the web server emulation device couples to the digital appliance by directly physically connecting to the digital appliance (USB interface, page 4, paragraph 6).

3-9. Regarding claim 15, Ahn et al. further disclose wherein the web server emulation device couples to the digital appliance by remotely connecting to the digital appliance (the wireless LAN interface, page 4, paragraph 6).

3-10. Regarding claim 16, Ahn et al. further disclose wherein the web server emulation device couples to the digital appliance by wirelessly connecting to the digital appliance (the wireless LAN interface, page 4, paragraph 6).

3-11. Regarding claim 18, Ahn et al. further disclose wherein said one or more agents prepare web content to be served by using information received from the coupled digital appliance (the *web page* which is built in circuit emulator based on *the web connected* regardless of the kind of the kinds of machines of the host system or the operating system through the web browser of the host system provides the development environment of the target embedded system, page 3, paragraph 1; including the host system (1)).

3-12. Regarding claim 19, Ahn et al. further disclose wherein said one or more agents obtain web content from a remote server (the *web page* which is built in circuit emulator based on *the web connected* regardless of the kind of the kinds of machines of the host system or the operating system through the web browser of the host system provides the development environment of the target embedded system, page 3, paragraph 1; including remote server).

3-13. Regarding claim 20, the system claim includes equivalent method limitations as in claim 1 and is unpatentable using the same analysis of claim 1.

3-14. Regarding claim 30, Yang further discloses wherein the web server emulation device is a USB flash drive portable storage device (the USB flash drive … includes a mobile storage device 2 and at least one interconnector 3, page 5, paragraph 5).

3-15. Regarding claim 55, Yang further discloses wherein the web server emulation device is a USB flash drive (the USB flash drive … includes a mobile storage device 2 and at least one interconnector 3, page 5, paragraph 5).

3-16. Regarding claim 56, Yang further discloses wherein the web server emulation device is a removable flash storage media (the USB flash drive … includes a mobile storage device 2 and at least one interconnector 3, page 5, paragraph 5).

3-17. Regarding claims 57 and 58, the system claim includes equivalent method limitations as in claims 55 and 56 and are unpatentable using the same analysis of claims 55 and 56.

4. Claims 5, 7-11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Ahn et al., KR Patent Publication No. KR2003-0000794 published January 6, 2003, and Yang, U.S. Patent 6,733,329 B2 issued May 11, 2004, and filed August 21, 2002, in view of Applicants' admission.

4-1. Regarding claim 5, Ahn et al. discloses a web server emulation device in claim 1.

Ahn et al. fail to expressly disclose wherein the digital appliance is a mobile phone.

Applicants assert in the specification at page 2, line 20 through page 3, line 2, "Web pages may be displayed on a client computing device (hereafter Client Digital Appliance) such as PC, laptops, PDA, mobile phone and any other computational device that can connect to the Internet." In other words, a mobile phone may be used to display web pages.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate Applicants' admission because using a mobile phone to display web pages would provide improved mobility for a user than using a host computer system.

4-2. Regarding claims 7-11, Ahn et al. disclose a web server emulation device in claim 1.

Ahn et al. fail to expressly disclose wherein the web content is streamed content, an electronic book, a document, an HTML form, or a multimedia file.

Applicants assert in the specification at page 3, lines 12-21, "The content sent to the browser can be of several types and formats. It can be static, such as a text file or an image file; HTML (Hyper Text Markup Language) is frequently used to describe static information on a web page. Other types can be streamed data, such as video and audio, which are transmitted as a stream composed of chunks of information, then processed and rendered as received. Another type of information can be a file such as text, video, audio, games, programs, Java applets, or ActiveX controls, all of which may be downloaded from web server to client. Still another format can be user-input dependant and is determined by information sent from client to server, for example a "search" command requested by the client triggers a process in the server to dynamically produce the information to be rendered."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate Applicants' admission because web content can be of several types and formats in a client/server environment would provide more options to meet a user's requirement.

4-3. Regarding claim 17, Ahn et al. disclose a web server emulation device in claim 1.

Ahn et al. fail to expressly disclose the one or more non volatile storages further comprising a hidden-from-user storage area used to store at least part of the web content, wherein said one or more agents control access to the hidden-from-user storage area.

Applicants assert in the specification at page 6, lines 9-11, "In a true online client/server scenario, part of the data and programs on the server are not accessible by the client." In other words, a hidden-from-user storage area is used to store at least part of the web content.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate Applicants' admission because with a hidden-from-user storage area would improve the security and privacy.

5. Claims 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Ahn et al., KR Patent Publication No. KR2003-0000794 published January 6, 2003, and Yang, U.S. Patent 6,733,329 B2 issued May 11, 2004, and filed August 21, 2002, in view of Bowman-Amuah, U.S. Patent 6,742,015 B1 issued May 25, 2004, and filed August 31, 1999.

5-1. Regarding claims 22-29, Ahn et al. disclose a web server emulation system in claim 20. Ahn et al. further disclose wherein the digital appliance comprises:

a interface whereby the web server emulation device can be coupled to the digital appliance (the host interface (21), page 10, Fig. 1).

Ahn et al. fail to expressly disclose the various functions of a middleware and how the middleware can be identified.

Bowman-Amuah discloses at columns 56 and 57, "There is a definite functionality overlap between communications middleware and several other middleware components such as transaction services and information access", "Communications middleware can translate data into a format that is compatible with the receiving process", "Communications middleware can provide additional communications services that may be required by the applications", "The simplified interface associated with communications middleware can help to reduce the complexity of developing Netcentric applications", and "Communication middleware allows the client application to access any service on any physical server in the network without needing to

know where it is physically located". In other words, because the middleware, e.g., communications middleware, allows the client application to access any service on any physical server in the network without needing to know where it is physically located, identifying the middleware by specific address or port as a network node is necessary and obvious.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate the teachings of Bowman-Amuah because the above-mentioned various functions cannot be provided if the middleware cannot be identified and located.

6. Claims 1 and 31 are rejected under 35 U.S.C. 103(a) as being over Ahn et al., KR Patent Publication No. KR2003-0000794 published January 6, 2003, in view of Kuo, U.S. Patent Application Publication No. 2003/0185083 A1 published October 2, 2003, and filed March 27, 2002.

6-1. Regarding claim 1, Ahn et al. disclose a web server emulation device for serving web content, the web server emulation device adapted to be coupled to a digital appliance for end use of at least part of the web content, the web server emulation device comprising:

one or more non-volatile storages (*flash memory,* page 5, paragraph 7) for storing at least part of the web content (the *web page* which is prepared in order to provide the development environment of the target embedded system (3) is built in the memory (222), page 5, paragraph 8);

one or more interfaces, coupled to at least one of the nonvolatile storages, the one or more interfaces for receiving and sending at least part of the web content (target *interface* (23), ... and host *interface* (21), page 6, paragraph 6), and

one or more agents for preparing web content to be served the digital appliance (the web server application is performed, page 5, paragraph 7),

wherein at least part of the web content is served the digital appliance for end use of the web content (In the *web page* through the web browser (11) of the *host system* (1), the development of the target embedded system (3) is performed, page 6, paragraph 10).

Ahn et al. fail to expressly disclose the web server emulation device is a portable storage device. Nevertheless, Ahn et al. disclose the memory (222) may include flash memory in page 5, paragraph 7, and the in circuit emulator based on the web (2) is a device having two interfaces as shown in page 10, Fig. 1.

Kuo discloses, "Flash memory is ideal for dozens of portable applications. It is more flexible than a floppy and is faster than a hard drive. A flash storage is more rugged, which is able to tolerate severe shock and vibration without losing data. A flash storage card is also designed with solid state components, which save power and consume less energy" (column 1, paragraph [0004]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ahn et al. to incorporate the teachings of Kuo because a flash storage card may save power and consume less energy.

6-2. Regarding claim 31, Kuo further discloses the web server emulation device is a memory card type portable storage device (FIG. 1).

Applicants' Arguments

7. Applicants argue the following:

(1) "The Office Action also notes (p.3, lns. 11-12) the "circuit simulator" has "two interfaces as shown in [Ahn's] Fig.l", which again reflects that all of Ahn's teachings are directed at this "circuit emulator" whose function is for the "development of the target embedded system" while connected to both the "host system" and the "target embedded system"." (Page 10, paragraph 2, Response)

(2) "To embody Ahn's "circuit emulator" as such a "portable storage device" consequently makes no sense. Because of this, it is respectfully submitted that not only is it not oblivious to combine Ahn with the secondary references as suggested in the Office Action, but that it would contrary to the purposes and teachings of Aim to embody the "circuit emulator" disclosed these as a "portable storage device"." (Page 10, paragraph 3, through page 11, paragraph 1, Response)

(3) "That is, a user would interact with Ahn's "circuit emulator" as if it were a web page, but, as described there in the second paragraph on page 3 and developed throughout Ahn's disclosure, this is just the form of the Graphic User Interface (GUI) takes when presented to the user for emulating the target embedded system. This is something different from a "portable storage device" "for serving web content ... to a digital appliance for end use of at least part of the web content", as is present in claim 1." (Page 11, paragraph 2, Response)

Response to Arguments

8. Applicants' arguments have been fully considered.

8-1. Applicants' argument (1) is not persuasive. The circuit emulator of Ahn et al. having "two interfaces" anticipates the limitation "one or more interfaces" as recited in line 4 of claim 1.

Furthermore, Ahn et al. disclose in page 5, paragraph 6, "The *web server* built in emulator (22) is made of the memory (222) of storing the webserver function and the CPU (221) which at the same time, *performs in circuit emulator function* and relative program and BIOS or the execution file etc." In other words, the emulator (22) included in the "in circuit emulator (2)" is a *web server* to *perform in circuit emulator function*. Therefore, the "in circuit emulator (2)" anticipates the recited limitation "web server emulation device". On the other hand, the recited "web content" in claim 1 does not exclude the possibility that the "web content" is related to the development of a target embedded system. Thus, Applicants' argument is not persuasive.

8-2. Applicants' argument (2) is not persuasive. Ahn et al. disclose in page 4, paragraph 6, the USB interface, the serial interface, the Ethernet interface, or the wireless LAN interface is preferably acceptable interface. In other words, at least when the wireless LAN interface is used, for example, the "in circuit emulator (2)" is eventually a "portable storage device" because it includes the memory (222). Therefore, Applicants' argument "To embody Ahn's "circuit emulator" as such a "portable storage device" consequently makes no sense." is not persuasive.

8-3. Applicants' argument (3) is not persuasive. As discussed in paragraph **8-1** above, the "in circuit emulator (2)" anticipates the recited limitation "web server emulation device" and the recited "web content" in claim 1 does not exclude the possibility that the "web content" is related to the development of a target embedded system by the host system (1). Also, as discussed in paragraph **8-2** above, at least when the wireless LAN interface is used the "in circuit emulator (2)" is eventually a "portable storage device" because it includes the memory (222). Therefore, Applicants' argument "This is something different from a "portable storage device" "for serving

web content ... to a digital appliance for end use of at least part of the web content", as is present in claim 1." is not persuasive.

Conclusion

9. **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/
Supervisory Patent Examiner, Art Unit 2128

/Herng-der Day/
Examiner, Art Unit 2128

December 1, 2009